

Notice of Allowability

Application No.

10/722,214

Examiner

Kamran Afshar, 571-272-7796

Applicant(s)

ACAMPORA, ANTHONY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/28/2006.
2. ☒ The allowed claim(s) is/are 21-26, 29-35, 38-44, 47-54, 57-63, 66-82, 86-88 and 93-100.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/24/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Kamran Afshar, 571-272-7796
Patent Examiner
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DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Bing Ai, Reg. No.: 43,312 on 7/28/2006.

The application has been amended as follows:

In The Claim(s):

Claims 1-20, 27-28, 36-37, 45-46, 55-56, 64-65, 83-85, and 89-92 are canceled.

21. (Currently Amended) A power efficient and adaptive wireless communication system, comprising:

a plurality of communication agents in wireless radio communication with one another to form a local wireless communication network, wherein each communication agent is powered from a power grid;

a plurality of communication clients in wireless radio communication with said local wireless communication network, wherein at least one communication client is powered by a portable power source and each communication client performs an additional function other than radio communication; and

a local network controller in said local wireless communication network to control a communication path of a communication signal for each communication client to conserve a communication bandwidth used by said communication path;

wherein said plurality of communication agents operate collectively to register a new communication client to said local wireless communication network and reconfigure said local wireless communication network when either a communication agent or a communication client is added or removed.

22. (Previously Presented) The system as in claim 21, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

23. (Previously Presented) The system as in claim 21, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

24. (Previously Presented) The system as in claim 23, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

25. (Previously Presented) The system as in claim 21, wherein said local network controller resides in a selected communication agent.

26. (Previously Presented) The system as in claim 21, wherein said local network controller distributes among a plurality of selected communication agents.

27. (Cancelled)

28. (Cancelled)

29. (Previously Presented) The system as in claim 21, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

30. (Previously Presented) The system as in claim 21, wherein said local communication network operates based on an IEEE 802.11 standard.

31. (Previously Presented) The system as in claim 30, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

32. (Previously Presented) The system as in claim 30, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

33. (Previously Presented) The system as in claim 32, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

34. (Previously Presented) The system as in claim 30, wherein said local network controller resides in a selected communication agent.

35. (Previously Presented) The system as in claim 30, wherein said local network controller distributes among a plurality of selected communication agents.

36. (Cancelled)

37. (Cancelled)

38. (Previously Presented) The system as in claim 30, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

39. (Previously Presented) The system as in claim 21, wherein said local communication network operates based on a Bluetooth standard.

40. (Previously Presented) The system as in claim 39, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

41. (Previously Presented) The system as in claim 39, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for

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communications between a communication client and said at least one external communication network.

42. (Previously Presented) The system as in claim 41, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

43. (Previously Presented) The system as in claim 39, wherein said local network controller resides in a selected communication agent.

44. (Previously Presented) The system as in claim 39, wherein said local network controller distributes among a plurality of selected communication agents.

45. (Cancelled)

46. (Cancelled)

47. (Previously Presented) The system as in claim 39, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

48. (Previously Presented) The system as in claim 21, wherein each of said communication agents and clients is assigned with a unique address to allow for radio communications in said local communication network without separating the radio communications in tiers by radio frequency.

49. (Previously Presented) The system as in claim 48, wherein a same radio frequency is used for agent-to-agent communications and agent-to-client communications.

50. (Previously Presented) The system as in claim 48, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

51. (Previously Presented) The system as in claim 48, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

52. (Previously Presented) The system as in claim 51, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

53. (Previously Presented) The system as in claim 48, wherein said local network controller resides in a selected communication agent.

54. (Previously Presented) The system as in claim 48, wherein said local network controller distributes among a plurality of selected communication agents.

55. (Cancelled)

56. (Cancelled)

57. (Previously Presented) The system as in claim 48, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

58. (Previously Presented) The system as in claim 48, wherein each of said communication agents and clients is assigned with a unique address to allow for radio communications in said local communication network without separating the radio communications in tiers by time.

59. (Previously Presented) The system as in claim 58, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

60. (Previously Presented) The system as in claim 58, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

61. (Previously Presented) The system as in claim 60, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

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62. (Previously Presented) The system as in claim 58, wherein said local network controller resides in a selected communication agent.

63. (Previously Presented) The system as in claim 58, wherein said local network controller distributes among a plurality of selected communication agents.

64. (Cancelled)

65. (Cancelled)

66. (Previously Presented) The system as in claim 58, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

67. (Currently Amended) A power efficient and adaptive wireless communication system, comprising:

a plurality of communication agents in wireless radio communication with one another to form a local wireless communication network, wherein each communication agent is powered from a power grid;

a plurality of communication clients in wireless radio communication with said local wireless communication network, wherein at least one communication client is powered by a portable power source and each communication client performs an additional function other than radio communication; and

a local network controller in said local wireless communication network to control a communication path of a communication signal for each communication client,

~~The system as in claim 21,~~ wherein each of said communication agents and clients is assigned with a unique address to allow for radio communications associated with said local communication network without separating the radio communications in tiers by code division.

68. (Previously Presented) The system as in claim 67, wherein said local network controller is configured to select a communication path for a communication client to conserve power of at least one portable power source.

69. (Previously Presented) The system as in claim 67, further comprising a communication gateway coupled to provide communications between said local wireless

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communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

70. (Previously Presented) The system as in claim 69, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

71. (Previously Presented) The system as in claim 67, wherein said local network controller resides in a selected communication agent.

72. (Previously Presented) The system as in claim 67, wherein said local network controller distributes among a plurality of selected communication agents.

73. (Previously Presented) The system as in claim 67, wherein said local network controller further controls a communication path for a signal from a communication client to conserve a communication bandwidth used by said communication path.

74. (Previously Presented) The system as in claim 67, wherein said plurality of communication agents operate collectively to register a new communication client to said local wireless communication network and reconfigure said local wireless communication network when either a communication agent or a communication client is added or removed.

75. (Previously Presented) The system as in claim 67, further comprising a battery backup connected to a communication agent to supply power when the power grid fails.

76. (Previously Presented) The system as in claim 21, wherein at least one of said plurality of communication clients is powered by the power grid.

77. (Amended) A method for providing a power efficient and adaptive wireless communications in a wireless communication system, comprising:

providing a plurality of communication agents distributed at a locale to wirelessly radio communicate with one another in a self-organized manner to form a local wireless communication

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network which reconfigures when a communication agent is removed or added, wherein each communication agent is powered from a power grid;

connecting said local wireless communication network to an external communication network;

providing a plurality of communication clients to wirelessly radio communicate with and to register in said local wireless communication network as a part of said local wireless communication network such that each communication client ~~is operable~~ operates to communicate with another communication client and to access the external communication network, wherein each communication client performs an additional function other than radio communication; and

selecting a communication path of a communication signal for a communication client in said local wireless communication network according to a configuration of said local wireless communication network at time of communication to conserve a communication bandwidth used by said communication path; and

assigning each of said communication agents and clients with a unique address in said local wireless communication network to allow for use of a common radio frequency for all communication signals in said local wireless communication network.

78. (Previously Presented) The method as in claim 77, wherein at least one of said communication clients is powered by a portable power source, and wherein a communication path for a communication client is selected to reduce the use of power of at least one portable power source.

79. (Previously Presented) The method as in claim 77, wherein said communication path is selected to reduce a number of hops in said local wireless communication network.

80. (Previously Presented) The method as in claim 77, further comprising using different communication tiers for wireless communications between two communication agents and for wireless communications between a communication agent and a communication client.

81. (Previously Presented) The method as in claim 80, wherein at least one of said communication clients is powered by a portable power source, and wherein a communication path for said at least one communication client is selected to reduce the use of the power of the portable power source.

82. (Previously Presented) The method as in claim 80, wherein said communication path is selected to reduce a number of hops in said local wireless communication network.

83. (Cancelled)

84. (Cancelled)

85. (Cancelled)

86. (Currently Amended) A power efficient and adaptive wireless communication system, comprising:

a plurality of communication agents in wireless radio communication with one another, wherein each communication agent is powered from a power grid ~~source of a first type~~;

a plurality of communication clients ~~operable~~ each operating to at least wirelessly radio communicate with said communication agents to form a local wireless communication network of said communication agents and clients, wherein at least one communication client is powered by a portable power source ~~power source of a second type which is relatively depletable with respect to said power source of said first type~~, wherein each communication client performs an additional function other than radio communication; and

a local network controller in said local wireless communication network to control a communication path of a communication signal for said at least one communication client to conserve a communication bandwidth used by said communication path;

wherein said plurality of communication agents operate collectively to register a new communication client to said local wireless communication network and reconfigure said local wireless communication network when either a communication agent or a communication client is added or removed.

87. (Currently Amended) The system as in claim 86, wherein said local network controller controls a communication path for a communication client to conserve power of the portable power source ~~consumed by at least one power source of said second type~~.

88. (Previously Presented) The system as in claim 86, wherein said local network controller controls said communication path to reduce a number of hops in said local wireless communication network.

89. (Cancelled)

90. (Cancelled)

91. (Cancelled)

92. (Cancelled)

93. (Previously Presented) The system as in claim 86, wherein one of said communication clients is selected from a group consisting of:

telephones;

televisions;

computers;

keypad controllers;

burglar alarms; and

appliances.

94. (Currently Amended) The system as in claim 86, wherein at least one communication client is powered from said power grid ~~power source of said first type as said communication agents~~.

95. (New) The system as in claim 86, wherein said local network controller resides in a selected communication agent.

96. (New) The system as in claim 86, wherein said local network controller distributes among a plurality of selected communication agents.

97. (New) The system as in claim 86, wherein said local communication network operates based on an IEEE 802.11 standard.

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98. (New) The system as in claim 86, wherein said local communication network operates based on a Bluetooth standard.

99. (New) The system as in claim 86, further comprising a communication gateway coupled to provide communications between said local wireless communication network and at least one external communication network to allow for communications between a communication client and said at least one external communication network.

100. (New) The system as in claim 99, wherein said communication gateway wirelessly communicates with at least one communication agent in said local communication network.

Allowable Subject Matter

2. In View of Amended claims as discussed above in item 1 and the Terminal Disclaimer, Claims 21-26, 29-35, 38-44, 47-54, 57-63, 66-82, 86-88 and 93-100 are allowed.

The following is an examiner's statement of reasons for allowance: 21-26, 29-35, 38-43, 47-54, 57-63, 66-82, 86-88 and 93-100.

With respect to claim 1, Salazar (U.S. Patent 5,802,467) is the closest prior art to the application invention, which discloses a wireless communications system (See Fig. 1b) comprising: a plurality of communication agents (See 2-11 of Fig. 1B), wherein each communications agent locally and wirelessly radio-communicating with the clients (See Links between 2-11 and 10 or 25 of Fig. 1b); and a plurality of clients, each performing an additional function other than just radio communication (See 25 and 10 of Fig. 1b), at least one of which clients is powered from a portable power source (See 10 of Fig. 1b). And the agents powered from the power grid (See Co. 2, Lines 47-64, Co. 3, Lines 4-14, Co. 5, Lines 10-27, 40 of Fig. 3).

Want (U.S. Patent 5,564,070) discloses method and system for maintaining processing continuity to mobile computers in a wireless network.

However, the prior art of record fails to disclose singly or in combination or render obvious that the local network controller in the local wireless communication network to control a communication path of a communication signal for each communication client to conserve a communication bandwidth used by the communication path; wherein the plurality of communication agents operate collectively to register a new communication client to the local wireless communication network and reconfigure the local wireless communication network when either a communication agent or a communication client is added or removed.

With respect to claim 67, the prior art of record fails to disclose singly or in combination or render obvious that the local network controller in the local wireless communication network to control a communication path of a communication signal for each communication client, wherein each of the communication agents and clients is assigned with a unique address to allow for radio communications associated with the local communication network without separating the radio communications in tiers by code division.

With respect to claim 77, the prior art of record fails to disclose singly or in combination or render obvious that selecting a communication path of a communication signal for a communication client in the local wireless communication network according to a configuration of the local wireless communication network at time of communication to conserve a communication bandwidth used by the communication path; and assigning each of the communication agents and clients with a unique address in the local wireless communication network to allow for use of a common radio frequency for all communication signals in the local wireless communication network.

With respect to claim 86, the prior art of record fails to disclose singly or in combination or render obvious that the local network controller in said local wireless communication network to control a communication path of a communication signal for the at least one communication client to conserve a communication bandwidth used by the communication path; wherein the plurality of communication agents operate collectively to register a new communication client to the local wireless communication network and reconfigure the local wireless communication network when either a communication agent or a communication client is added or removed.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, Feild, Joseph can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kamran Afshar


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER